

(19)

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 883 086 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
13.01.1999 Bulletin 1999/02

(51) Int Cl. 6: G06T 5/00

(43) Date of publication A2:
09.12.1998 Bulletin 1998/50

(21) Application number: 98304240.9

(22) Date of filing: 28.05.1998

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 02.06.1997 JP 144059/97

(71) Applicant: SEIKO EPSON CORPORATION
Shinjuku-ku, Tokyo (JP)

(72) Inventors:
• Kuwata, Naoki
Suwa-shi, Nagano-ken (JP)
• Nakami, Yoshihiro
Suwa-shi, Nagano-ken (JP)

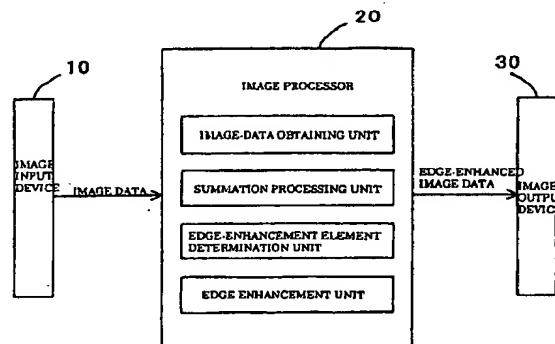
(74) Representative: Sturt, Clifford Mark et al
Miller Sturt Kenyon
9 John Street
London WC1N 2ES (GB)

(54) Edge-enhancement processing apparatus and method

(57) An edge-enhancement processing apparatus which removes problems of the conventional edge enhancement processing, which requires checking by an operator's visual observation or a high-frequency band filter, thus complicating the construction. A computer main body 21, as the nucleus of edge enhancement processing, calculates an edge amount as vector change level while generating a vector based on the difference values of data between adjacent pixels, at step

S110, then selects and integrates edge amounts of only pixels having large edge amounts at steps S120 and S130, and obtains the mean value at step S230, to obtain the sharpness level of the image while adding attention to the pixels having large image change levels. The computer main body 21 determines an edge enhancement level Enhance based on the image sharpness level. Thus, the computer main body 21 automatically performs edge enhancement processing at an optimum enhancement level.

FIG. 1





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 30 4240

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)						
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim							
X	US 5 271 064 A (DHAWAN ATAM P ET AL) 14 December 1993	1-5, 9, 10	G06T5/00						
Y	* abstract *	8, 11							
A	* column 3, line 26 - line 54 * * column 4, line 39 - line 51 * * column 6, line 23 - line 41; figure 2 *	6, 7							
Y	US 5 513 016 A (INOUE YOSHIAKI) 30 April 1996 * abstract * * column 6, line 29 - line 34 * * column 9, line 18 - line 23; figure 9 *	8, 11							
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)						
			G06T						
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>25 November 1998</td> <td>Gonzalez Ordóñez, O</td> </tr> </table> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>				Place of search	Date of completion of the search	Examiner	THE HAGUE	25 November 1998	Gonzalez Ordóñez, O
Place of search	Date of completion of the search	Examiner							
THE HAGUE	25 November 1998	Gonzalez Ordóñez, O							